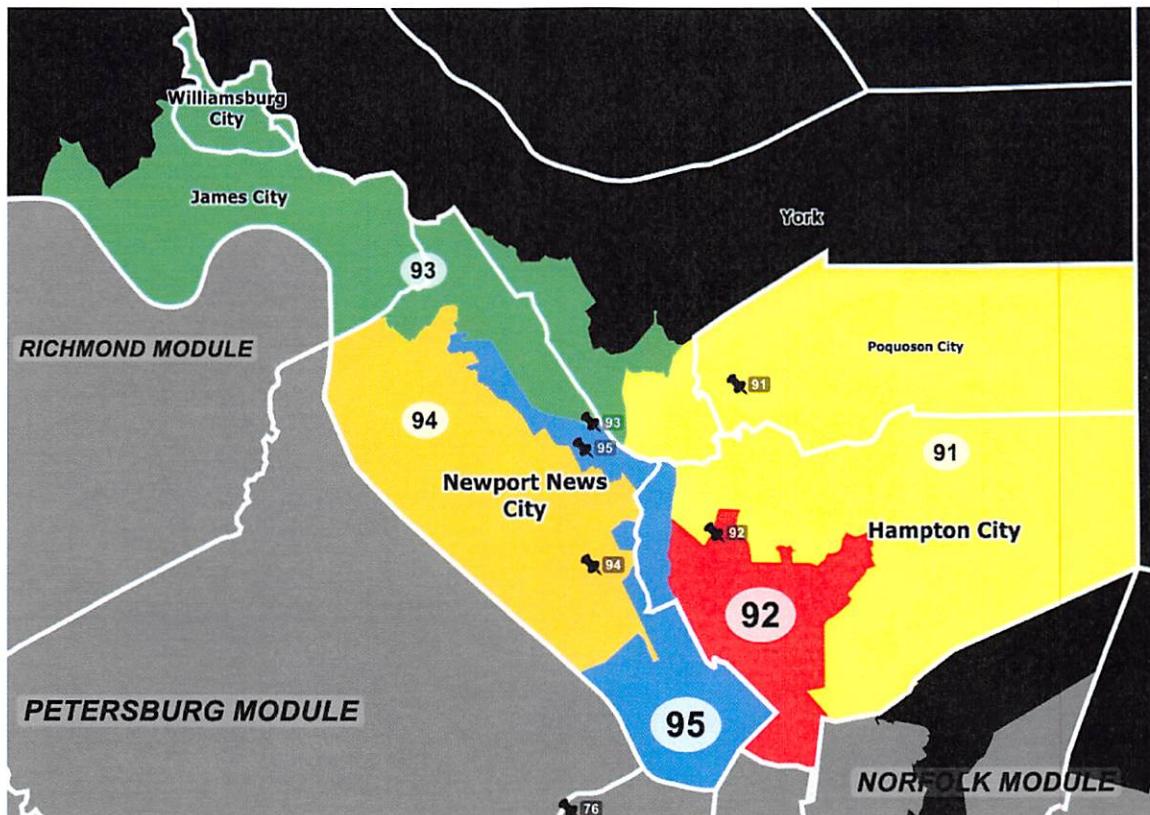


PENINSULA – Newport News/Hampton

PENINSULA ENACTED 2011 Map



PENINSULA – Newport News/Hampton

PENINSULA ENACTED 2011 Data

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper
91	79,229	-0.98%	19.61%	62.88%	44.26%	0.6	0.47
92	79,689	-0.40%	60.72%	77.89%	80.00%	0.34	0.26
93	79,211	-1.00%	22.58%	52.58%	58.10%	0.22	0.16
94	79,429	-0.73%	21.02%	49.74%	52.27%	0.35	0.38
95	80,071	0.08%	59.97%	79.24%	79.28%	0.14	0.14
MEAN	79,526	-0.61%	36.78%	64.47%	62.78%	0.33	0.28

UNCONSTITUTIONAL

CHANGED

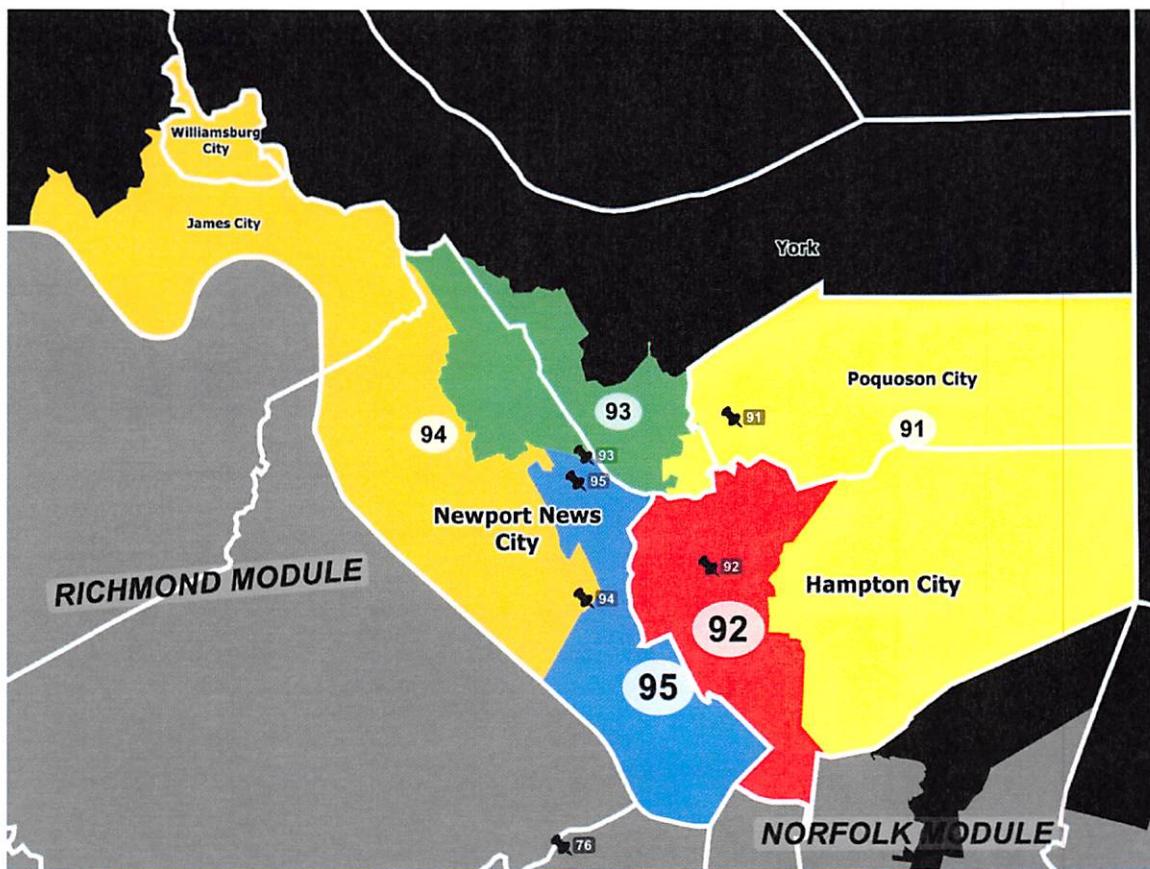
UNAFFECTED

County Splits

District	Total Splits	Hampton City	James City	Newport News City	Poquoson	Williamsburg	York
91	1	79,689					
92	2	14,584		65,487			
93	3	43,163			12,150		23,916
94	4		20,694	35,803		14,069	8,646
95	1			79,429			

PENINSULA – Newport News/Hampton

PENINSULA 1 Map



PENINSULA – Newport News/Hampton

PENINSULA 1 Data

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper
91	79,546	-0.58%	32.52%	69.63%	54.14%	0.60	0.40
92	79,479	-0.66%	53.87%	77.90%	75.75%	0.33	0.26
93	79,316	-0.87%	32.99%	64.62%	60.58%	0.33	0.27
94	79,672	-0.42%	16.79%	45.44%	51.73%	0.24	0.20
95	79,616	-0.49%	47.48%	70.48%	71.91%	0.27	0.30
MEAN	79,526	-0.60%	36.73%	65.61%	62.82%	0.35	0.29

UNCONSTITUTIONAL

CHANGED

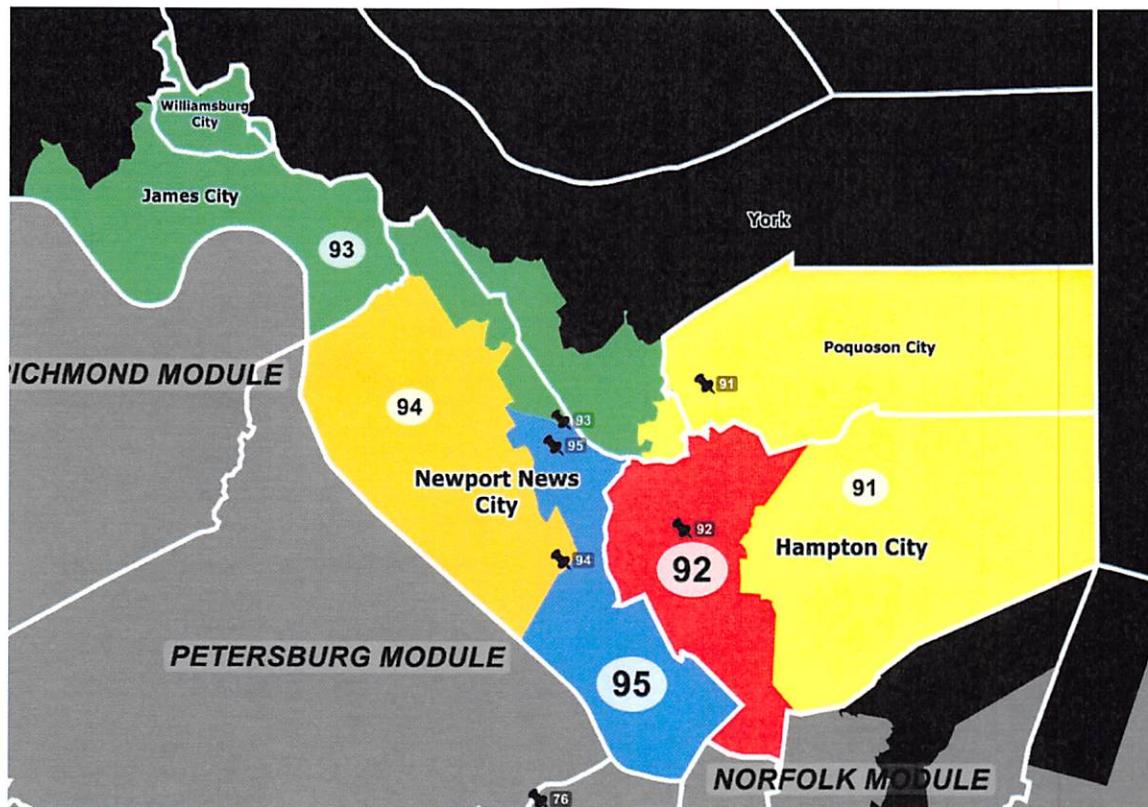
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County Splits

District	Total Counties	Hampton	James City	Newport News	Poquoson	Williamsburg	York
91	3	57,957			12,150		9,439
92	1	79,479					
93	2			56,193			23,123
94	3		20,694	44,910		14,068	
95	1			79,616			

PENINSULA – Newport News/Hampton

PENINSULA 2 Map



PENINSULA – Newport News/Hampton

PENINSULA 2 Data

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper
91	79,546	-0.58%	32.52%	69.63%	54.14%	0.60	0.44
92	79,479	-0.66%	53.87%	77.90%	75.75%	0.33	0.26
93	79,769	-0.30%	18.18%	50.57%	52.03%	0.20	0.13
94	79,461	-0.69%	31.13%	56.30%	59.06%	0.16	0.51
95	79,374	-0.79%	47.36%	71.03%	72.42%	0.25	0.30
MEAN	79,526	-0.61%	36.61%	65.08%	62.68%	0.31	0.33

UNCONSTITUTIONAL	CHANGED	UNAFFECTED
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County Splits

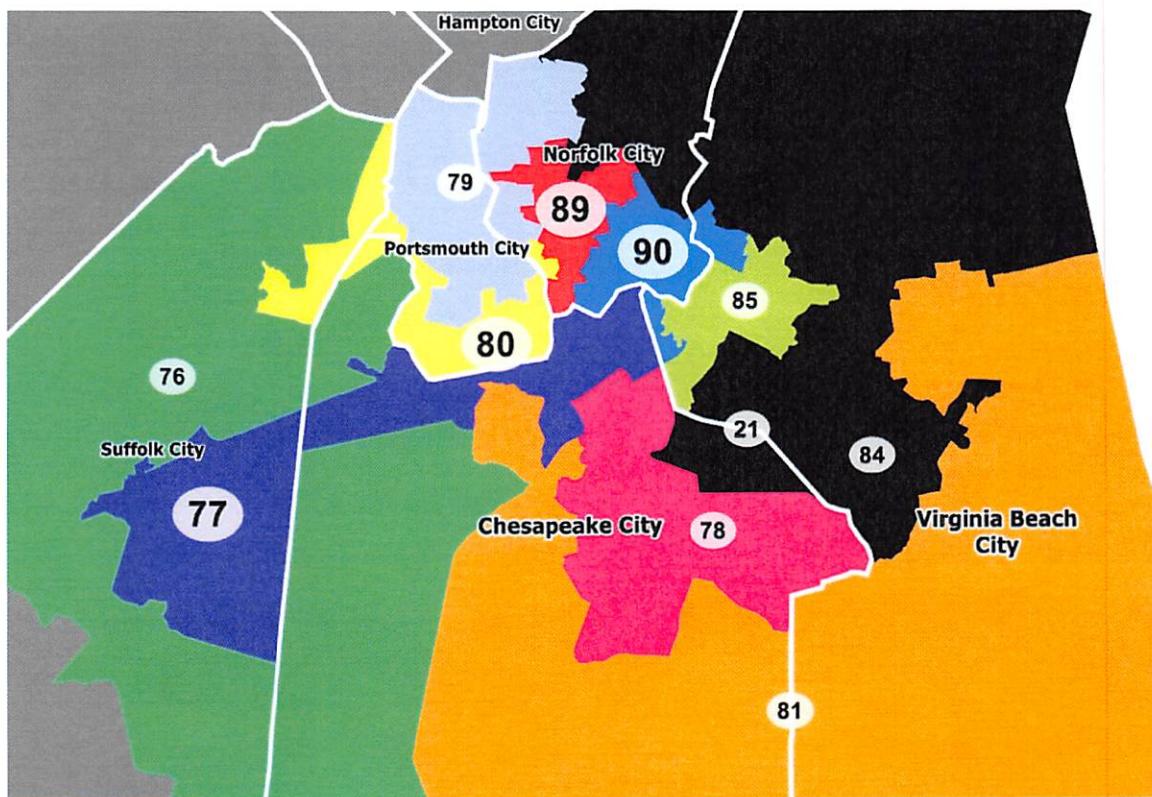
District	Total Counties	Hampton	James City	Newport News	Poquoson	Williamsburg	York
91	3	57,957			12,150		9,439
92	1	79,479					
93	4		20,694	21,884		14,068	23,123
94	1			79,461			
95	1			79,374			

(d) I offer to the Court one illustrative module for the Norfolk-Chesapeake-Portsmouth area that has three very minor variations: Norfolk-Chesapeake 1A, 1B, 1C. These variations differ only very slightly. One variation changes 10 districts in the area, one changes 9, and one changes only 8. The other differences between these variants are in overall compactness and in the number of distinct county pieces found in the plan. These differences occur in districts adjacent to the unconstitutional districts, with the underlying configurations of the four unconstitutional districts in the area either wholly or essentially unchanged across the variants. All of these maps in my view remedy the constitution violation found in districts 77, 80, 89, and 90. None contain any districts with more than a 55% black voting age population, and some have considerably lower BVAP. All create fewer county splits than the 2011 Enacted map. All are, on average, more compact with respect to both the Reock and the Polsby-Popper measure. All are drawn in accordance with traditional districting criteria and do not have race as a preponderant motive. None involve any fracking.

A map and key statistics about each of these Norfolk-Chesapeake-Portsmouth area variants is provided below, with comparison to the 2011 Enacted map.

NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK ENACTED 2011 Map



NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK ENACTED 2011 Data

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31
76	80,313	0.38%	25.14%	65.98%	43.89%	0.48	0.17
77	79,627	-0.48%	58.78%	78.92%	77.71%	0.19	0.15
78	80,475	0.58%	17.14%	64.46%	38.82%	0.46	0.35
79	80,243	0.29%	29.46%	48.50%	62.15%	0.45	0.26
80	80,705	0.87%	56.30%	61.01%	75.16%	0.26	0.11
81	79,438	-0.71%	18.60%	54.83%	41.62%	0.40	0.23
83	79,538	-0.59%	15.12%	46.02%	46.69%	0.52	0.34
84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26
85	80,800	0.99%	18.93%	57.51%	49.76%	0.40	0.24
89	79,614	-0.50%	55.46%	51.92%	82.03%	0.40	0.20
90	80,425	0.52%	56.59%	67.78%	79.98%	0.46	0.20
MEAN	80,089	0.10%	32.99%	59.81%	58.32%	0.41	0.24

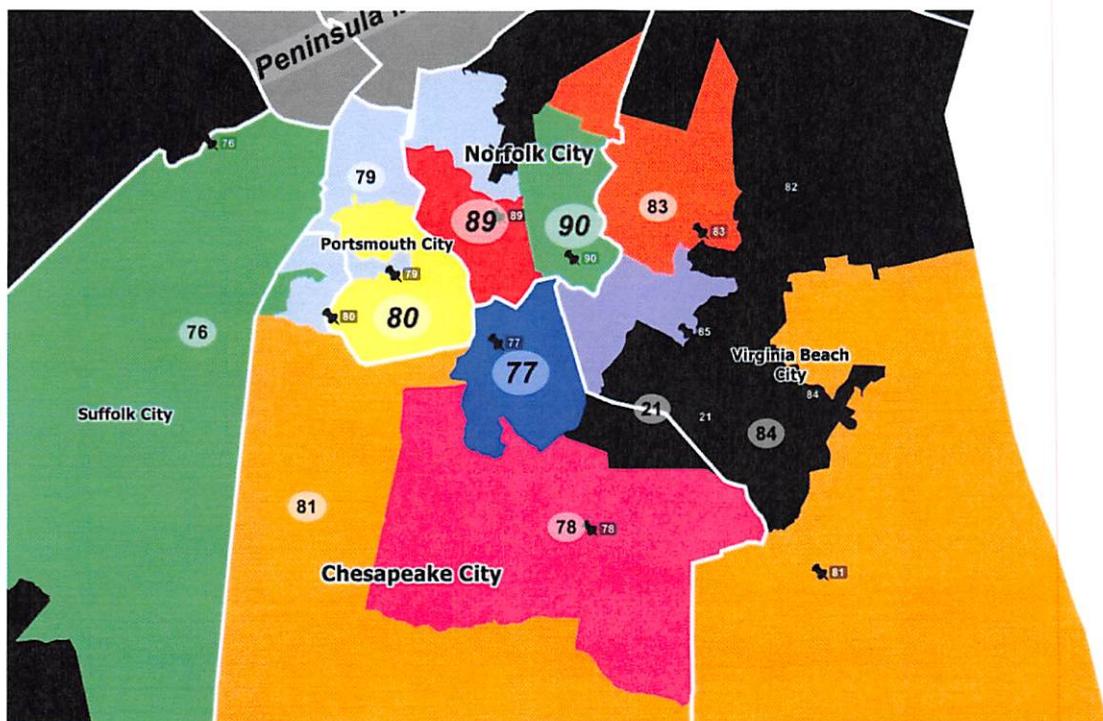
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County Splits

District	Total Counties	Chesapeake City	Norfolk City	Portsmouth City	Suffolk City	Virginia Beach City
21	2	5,030				74,578
76	2	33,222			47,091	
77	2	62,684			16,943	
78	1	80,475				
79	2		41,702	38,541		
80	4	6,590	3,682	56,994	13,439	
81	2	34,208				45,230
83	2		33,008			46,530
84	1					80,281
85	1					80,800
89	1	79,614				
90	2	50,313				30,112

NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK 1A Map



NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK 1A Data

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31
76	79,795	-0.27%	42.89%	68.81%	57.60%	0.44	0.45
77	79,810	-0.25%	40.23%	73.03%	63.53%	0.55	0.52
78	80,703	0.87%	16.85%	64.96%	36.04%	0.49	0.42
79	79,895	-0.14%	31.46%	51.27%	59.38%	0.27	0.11
80	79,340	-0.84%	51.38%	57.45%	70.67%	0.55	0.36
81	79,950	-0.08%	25.34%	69.21%	49.65%	0.32	0.20
83	80,805	0.99%	23.10%	52.46%	52.86%	0.50	0.29
84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26
85	80,787	0.97%	21.29%	59.80%	51.13%	0.39	0.30
89	80,481	0.59%	54.92%	51.64%	82.47%	0.38	0.48
90	79,612	-0.50%	41.93%	59.53%	69.71%	0.42	0.52
MEAN		80,089	0.10%	32.81%	60.75%	57.92%	0.43
							0.35

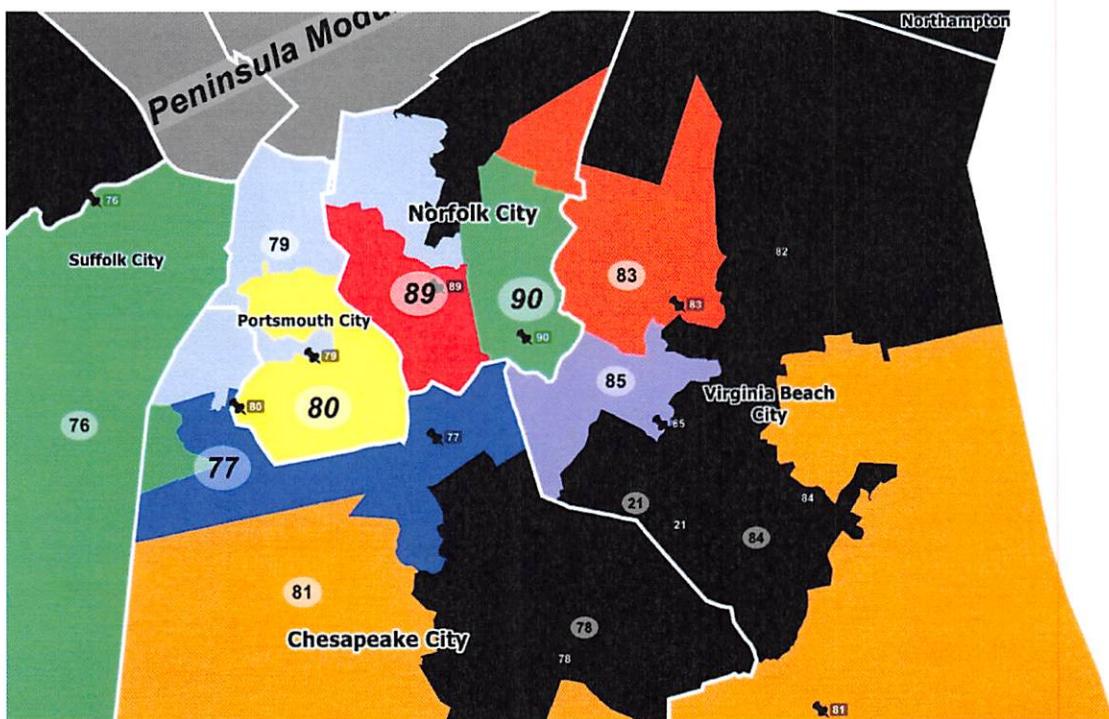
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County Splits

District	Total Counties	Chesapeake City	Norfolk City	Portsmouth City	Suffolk City	Virginia Beach City
21	2	5,030				74,578
76	2	2,322				77,473
77	1	79,810				
78	1	80,703				
79	3	19,624	44,076	16,195		
80	1			79,340		
81	2	34,720				45,230
83	2		4,150			76,600
84	1					80,281
85	1					80,842
89	1		80,481			
90	1		79,612			

NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK 1B Map



NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK 1B Data

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31
76	79,530	-0.60%	42.40%	68.63%	56.97%	0.45	0.47
77	79,363	-0.81%	47.03%	78.31%	67.86%	0.24	0.18
78	80,475	0.58%	17.14%	64.46%	38.82%	0.46	0.35
79	80,050	0.05%	31.98%	51.65%	60.38%	0.26	0.13
80	79,340	-0.84%	51.38%	57.45%	70.67%	0.55	0.36
81	80,735	0.91%	19.05%	58.62%	42.43%	0.37	0.27
83	80,463	0.57%	9.13%	37.58%	40.66%	0.50	0.29
84	80,805	0.99%	23.10%	52.46%	52.86%	0.44	0.26
85	80,787	0.97%	21.29%	59.80%	51.13%	0.39	0.30
89	80,481	0.59%	54.92%	51.64%	82.47%	0.38	0.48
90	79,612	-0.50%	41.93%	59.53%	69.71%	0.42	0.52
MEAN	80,104	0.12%	31.94%	58.73%	57.20%	0.41	0.33

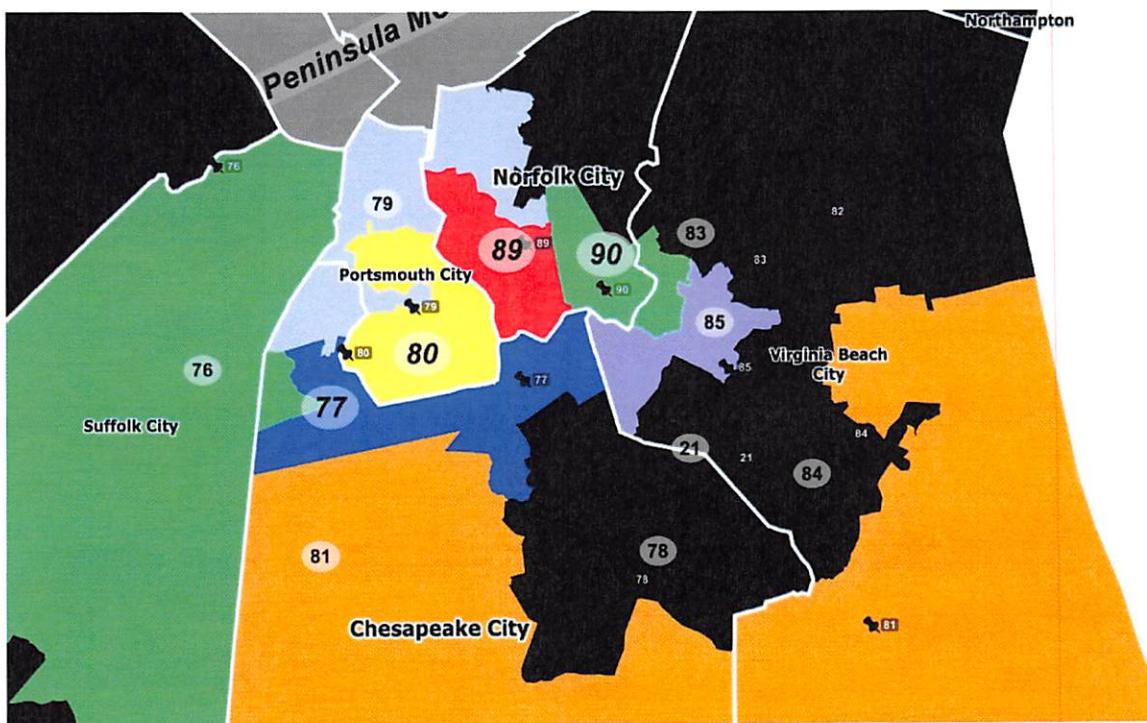
UNCONSTITUTIONAL	CHANGED	UNAFFECTED
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County Splits

District	Total Counties	Chesapeake City	Norfolk City	Portsmouth City	Suffolk City	Virginia Beach City
21	2	5,030				74,578
76	2	2,057				77,473
77	1	79,363				
78	1	80,475				
79	3	19,779	44,076	16,195		
80	1			79,340		
81	2	35,505				45,230
83	2		4,150			76,600
84	1					80,281
85	1					80,842
89	1		80,481			
90	1		79,612			

NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK 1C Map



NORFOLK/PORTSMOUTH/CHESAPEAKE

NORFOLK 1C Map

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31	
76	79,530	-0.60%	42.40%	68.63%	56.97%	0.45	0.47	
77	79,363	-0.81%	47.03%	78.31%	67.86%	0.24	0.18	
78	80,475	0.58%	17.14%	64.46%	38.82%	0.46	0.35	
79	79,972	-0.05%	32.00%	51.67%	60.34%	0.26	0.13	
80	79,340	-0.84%	51.38%	57.45%	70.67%	0.55	0.36	
81	80,735	0.91%	19.05%	58.62%	42.43%	0.37	0.27	
83	79,538	-0.59%	15.12%	46.02%	46.69%	0.52	0.34	
84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26	
85	80,721	0.89%	22.32%	61.50%	52.23%	0.36	0.25	
89	80,780	0.96%	54.98%	51.67%	82.48%	0.38	0.49	
90	80,724	0.89%	48.91%	65.76%	75.02%	0.40	0.40	
MEAN		80,089	0.10%	32.89%	60.41%	57.96%	0.40	0.32

UNCONSTITUTIONAL	CHANGED	UNAFFECTED
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County Splits

District	Total Counties	Chesapeake City	Norfolk City	Portsmouth City	Suffolk City	Virginia Beach City
21	2	5,030				74,578
76	2	2,057				77,473
77	1	79,363				
78	1	80,475				
79	3	19,779	44,076	16,195		
80	1			79,340		
81	2	35,505				45,230
83	2		33,008			46,530
84	1					80,281
85	1					80,721
89	1		80,481			
90	2		50,754			28,244

3. Implementation of equal protection

(a) Recompiling the 2012 Presidential general election, we see that Barack Obama wins in each of the redrawn unconstitutional districts in each of my illustrative modules -- usually by over sixty percent (see full data above). Thus, there can be no doubt that, if a viable African-American candidate wins the Democratic primary in the eleven unconstitutional districts configured as shown in any of my illustrative modules, then that candidate of the Democratic party has a realistic opportunity to win election in the general election due to cohesive voting from within the African-American community and cross-over voting from non-black Democrats – even if that candidate is not an incumbent.

(b) As suggested earlier, one key piece of evidence in determining whether or not we should expect that an African-American candidate has a realistic opportunity to win the Democratic party nomination in these reconfigured versions of the unconstitutional districts is to project into these districts the 2013 vote share of the African-American candidate, Justin Fairfax, in his quest for the Democratic party's nomination to be that party's candidate for statewide office of Attorney General. As noted above Mr. Fairfax was not an incumbent, and his principal opponent was a white candidate with a strong background who went on to win the Democratic

primary, statewide, and to subsequently be elected Attorney General of the State of Virginia. Thus, evidence that Mr. Fairfax would have won the 2013 Attorney General Democratic primary within the boundaries of the eleven illustrative remedial districts that would replace the eleven unconstitutional districts in the 2011 Enacted map in the illustrative modules I have drawn for the Court provides very strong evidence that a viable black candidate, who achieves cohesive support from the minority community and perhaps also some cross-over support from white Democrats, has a realistic opportunity to win the Democratic primary within these districts, even if not an incumbent.

(c) It is my view that an incumbent legislator campaigning in any of the illustrative redrawn versions of these unconstitutional districts would have done even better. Thus, given the recompiled election data presented later in the text, I expect present incumbents in the eleven unconstitutional districts to win the Democratic primary in the districts drawn in any of my illustrative modules, assuming that they run for reelection in 2019.⁵⁰ Even if that incumbent were to retire prior to the

⁵⁰ In some circumstances, it may be easier for a minority candidate of choice to win the Democratic primary than to win the general election (e.g., when there are few white Democrats relative to the number of African-American Democrats, and the combined African-American and non-African-American vote for the Democratic candidate is not large enough to win a general election); while in other circumstances it may be harder for a minority candidate of choice to win the Democratic primary than to win the general election (e.g., when there are many more white Democrats than black Democrats, but the combined African-American and non-African-American vote for the Democratic candidate is large enough for a Democrat to win a general election). But, as emphasized earlier, to have a realistically drawn “minority opportunity district” it is necessary to have a realistic

2020 election, the seat would still be open seat with a high black voting age percentage and a history of electing a minority candidate.

VI. FINDINGS AND RECOMMENDATIONS

1. Re submitted remedial plans

For reasons elaborated in the Appendix, I cannot recommend to the Court any of the five full plans presented to the Court either as of the Court ordered deadline November 2, 2018, or with purely technical corrections submitted soon thereafter. These plans can be eliminated on grounds of lack of narrow tailoring and/or failure to clearly remedy the constitutional infirmity.

2. Re court ordered map

In evaluating compliance with all the various criteria identified in the body of this report that are elements of a constitutional remedy along traditional districting lines, my recommendation is that the Court adopt a plan of its own that draws on the best elements of plans that have been submitted to the Court. I would also

chance to win both a party primary and a general election, running in the latter as the official candidate of that party. For further discussion of this and related issues see Bernard Grofman, Lisa Handley & David Lublin, Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence, 79 N.C. L. Rev. 1383 (2001).

propose that it focus on the illustrative map modules I have developed so as to ultimately select a preferred one from each module and then perfecting the remedial map in that portion of the state.

While the modularized maps I submitted to the Court for the various regions of the state are intended to be illustrative, and there may well be ways of improving them further, it is my professional judgment that each provides an appropriate and narrowly tailored means of remedying the constitutional infirmities in the present unconstitutional districts using traditional districting criteria in a way that clearly that does not have race as a predominant motive. It is also my view that these illustrative maps are attentive to the legal issues in this case to which the Court has called attention. And, to the best of my knowledge, they do not pair any present incumbents.

3. Re Timeline

From December 7, 2018 up to and including the hearing on January 10, 2019, with response briefs due on December 14, the parties had a full opportunity to present to the Court their comments on the illustrative maps I provide to the Court and suggestions for ways in which they should be redrawn. Since I am providing the Court with modules for different geographic areas of the state, some time after the filing of this Second Report on January 17, I expect that the Court will provide me instructions as to which illustrative geographically specified modules it wishes to see in the final remedial map, and further instructions as to any additional

reconfigurations that it wishes to see implemented. In particular, I expect to be given instructions by the Court on any reconfiguring of the illustrative maps that the Court believes is required by the comments of the parties. Once the Court has agreed on the basic outlines of a remedial map, I should be able to conduct any court-ordered further reconfiguring soon after being given these instructions, so that a court-ordered map can be put into place in a timely fashion.

APPENDIX A

Reasons for Recommending to the Court that it Reject Each of the Five Submitted Remedial Maps

I. Overview

There were five submissions pursuant to the Court's November 2 deadline that contained plans and maps offered as remedies which had sufficient information provided for me to evaluate them with respect to the relevant criteria discussed in the body of my Report. I reference these as Plaintiff's A and Plaintiff's B (from the plaintiffs), DI7002 and DI7003 from Defendant Intervenors (maps which were first introduced into the legislature), and the map from Virginia State Conference of NAACP Branches, which I henceforth simply label simply as the NAACP map.

The five complete plans/maps offered pursuant to the Court's November 7 deadline are, in my view, fatally flawed by not offered a fully narrowly tailored remedy for the constitutional infirmities in the set of eleven districts found to be unconstitutional instances of race preponderant gerrymandering in that they either modify some legislative districts that, demonstrably, did not need to be changed to deal with the constitutional problems identified (e.g., reconfigurations of more districts than needed for remedial purposes, or having redrawn districts that were not adjacent to the unconstitutional districts) and/or they failed to satisfactorily address the constitutional infirmity in some or all of the unconstitutional districts

in a narrowly tailored fashion.

Below I provide summary data charts for each of these five plans, with comparisons to the 2011 Enacted map. Because the five submitted remedial plans differed in the number of districts they changed, and they differ in exactly which districts are changed, the summary charts below are not organized into modules in the same way as in the Report's discussion of my own illustrative modules. Rather they are organized into three groupings of districts that facilitate comparisons across the plans. The first grouping reports data from the eleven unconstitutional districts. The second grouping reports data from the additional ten districts (district 27, 62, 68, 72, 73, 76, 79, 81, 85, and 91) which have been changed in all five plans. However, the summary data on mean and median values reported in the second chart is that for the combined set of twenty-one districts that are found in the first two groupings. This way of reporting data allows for more meaningful comparisons across plans since the set of changed districts being compared in the first two sets of districts is the same for all plans. Note, however, the degree to which there are differences in how each plan redrew the 2011 Enacted map, since there are only 21 districts that have been changed in all five plans, with the plans differing in which districts each changed, so that there are 36 different districts that have been changed in at least one of the submitted remedial maps.

The third grouping identifies the remaining districts that are changed in the given

plan, but that are not changed in all five submitted remedial maps. Thus, this third grouping is not the same for all plans, e.g. since DI7002 changes 30 districts in total, there are nine districts in the third grouping for that plan. The summary data on mean and median values reported in the third chart is that for all districts that are changed in the given plan. This third grouping is not reported for the 2011 Enacted map.

2011 ENACTED DATA

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31	
27	79,381	-0.79%	18.44%	57.85%	45.79%	0.35	0.25	
62	79,677	-0.42%	24.56%	64.83%	46.93%	0.36	0.13	
63	79,602	-0.51%	59.53%	68.40%	72.18%	0.25	0.16	
64	79,262	-0.93%	24.24%	63.19%	41.64%	0.37	0.16	
66	79,397	-0.77%	16.06%	62.36%	37.27%	0.31	0.27	
68	79,611	-0.50%	7.25%	40.25%	44.70%	0.36	0.25	
69	79,386	-0.78%	55.19%	61.33%	86.08%	0.52	0.34	
70	79,382	-0.78%	56.37%	66.92%	79.82%	0.4	0.19	
71	80,322	0.39%	55.35%	50.28%	87.02%	0.33	0.24	
72	80,764	0.94%	13.40%	41.33%	45.26%	0.26	0.08	
73	80,135	0.16%	13.55%	41.48%	46.75%	0.39	0.15	
74	79,594	-0.52%	57.24%	57.50%	75.06%	0.16	0.12	
75	79,295	-0.89%	55.43%	62.09%	62.71%	0.41	0.19	
76	80,313	0.38%	25.14%	65.98%	43.89%	0.48	0.17	
77	79,627	-0.48%	58.78%	78.92%	77.71%	0.19	0.15	
78	80,475	0.58%	17.14%	64.46%	38.82%	0.46	0.35	
79	80,243	0.29%	29.46%	48.50%	62.15%	0.45	0.26	
80	80,705	0.87%	56.30%	61.01%	75.16%	0.26	0.11	
81	79,438	-0.71%	18.60%	54.83%	41.62%	0.4	0.23	
83	79,538	-0.59%	15.12%	46.02%	46.69%	0.52	0.34	
84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26	
85	80,800	0.99%	18.93%	57.51%	49.76%	0.4	0.24	
89	79,614	-0.49%	55.46%	51.92%	82.03%	0.4	0.2	
90	80,425	0.52%	56.59%	67.78%	79.98%	0.46	0.2	
91	79,229	-0.98%	19.61%	62.88%	44.26%	0.6	0.47	
92	79,689	-0.40%	60.72%	77.89%	80.00%	0.34	0.26	
93	79,211	-1.00%	22.58%	52.58%	58.10%	0.22	0.16	
94	79,429	-0.73%	21.02%	49.74%	52.27%	0.35	0.38	
95	80,071	0.08%	59.97%	79.24%	79.28%	0.14	0.14	
MEAN		79,817	-0.24%	34.54%	59.26%	59.50%	0.37	0.23

DI7002 DATA

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31	
27	79,511	-0.62%	18.50%	61.00%	44.74%	0.5	0.28	
62	80,627	0.77%	25.46%	63.93%	46.29%	0.42	0.18	
63	79,308	-0.88%	55.09%	68.39%	66.80%	0.66	0.46	
64	79,650	-0.45%	34.07%	66.73%	47.84%	0.29	0.13	
66	79,975	-0.04%	20.48%	64.64%	42.29%	0.24	0.14	
68	79,342	-0.83%	11.38%	43.61%	49.47%	0.33	0.34	
69	79,561	-0.56%	54.41%	65.22%	83.12%	0.43	0.15	
70	79,380	-0.79%	61.77%	60.82%	85.29%	0.47	0.14	
71	80,222	0.27%	56.44%	50.95%	86.32%	0.28	0.28	
72	80,198	0.24%	14.31%	42.92%	46.72%	0.3	0.2	
73	79,927	-0.10%	11.27%	36.32%	45.46%	0.41	0.39	
74	79,379	-0.79%	44.27%	58.56%	64.33%	0.15	0.15	
75	79,823	-0.23%	53.37%	60.11%	60.83%	0.4	0.27	
76	79,657	-0.44%	27.26%	61.66%	44.78%	0.48	0.23	
77	79,508	-0.63%	46.76%	78.49%	68.72%	0.24	0.21	
78	79,662	-0.43%	16.79%	64.43%	38.42%	0.48	0.38	
79	80,270	0.33%	38.05%	56.81%	66.76%	0.27	0.19	
80	79,767	-0.30%	47.42%	55.96%	72.14%	0.46	0.39	
81	79,236	-0.97%	19.78%	58.69%	42.87%	0.37	0.27	
83	79,691	-0.40%	15.23%	46.11%	46.76%	0.51	0.31	
84	80,281	0.34%	20.45%	56.13%	49.57%	0.44	0.26	
85	80,479	0.59%	19.57%	58.02%	50.30%	0.39	0.28	
89	80,435	0.53%	51.44%	50.36%	80.43%	0.46	0.2	
90	80,805	0.99%	58.59%	68.12%	80.21%	0.39	0.19	
91	79,483	-0.66%	18.16%	61.86%	43.29%	0.29	0.3	
92	79,268	-0.93%	55.27%	76.93%	76.90%	0.35	0.26	
93	79,857	-0.19%	27.40%	53.37%	64.51%	0.2	0.15	
94	79,210	-1.00%	22.24%	48.92%	51.14%	0.45	0.38	
95	79,811	-0.25%	60.02%	78.29%	78.32%	0.4	0.26	
MEAN		79,798	-0.27%	34.30%	59.40%	59.24%	0.38	0.26

DI7003 DATA

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	80,538	0.66%	25.62%	66.85%	54.05%	0.29	0.2	
27	79,259	-0.94%	15.88%	56.01%	43.39%	0.31	0.28	
62	80,219	0.26%	28.19%	66.12%	49.51%	0.27	0.17	
63	79,859	-0.19%	51.81%	68.11%	63.21%	0.43	0.17	
64	79,225	-0.98%	26.18%	62.72%	42.78%	0.37	0.14	
66	79,703	-0.38%	23.73%	67.58%	45.31%	0.34	0.2	
68	79,236	-0.97%	14.80%	41.90%	47.83%	0.35	0.23	
69	79,444	-0.71%	52.69%	62.80%	83.37%	0.45	0.29	
70	80,662	0.81%	53.54%	64.03%	73.51%	0.4	0.13	
71	79,973	-0.05%	51.44%	50.26%	85.12%	0.46	0.28	
72	79,666	-0.43%	16.38%	44.93%	48.66%	0.28	0.16	
73	79,478	-0.66%	13.57%	38.39%	45.96%	0.39	0.22	
74	79,626	-0.48%	49.36%	57.52%	69.85%	0.15	0.11	
75	79,295	-0.89%	55.43%	62.09%	62.71%	0.41	0.19	
76	79,975	-0.04%	27.24%	64.84%	45.12%	0.51	0.18	
77	80,076	0.08%	47.41%	78.10%	70.46%	0.29	0.19	
78	79,451	-0.70%	15.74%	62.93%	37.24%	0.54	0.44	
79	80,714	0.88%	46.80%	56.26%	69.85%	0.19	0.16	
80	79,299	-0.89%	48.39%	55.15%	71.72%	0.49	0.32	
81	80,640	0.79%	20.23%	57.86%	44.97%	0.39	0.25	
83	80,727	0.90%	16.49%	44.96%	48.02%	0.3	0.22	
84	79,838	-0.22%	19.50%	54.76%	48.72%	0.5	0.34	
85	79,676	-0.42%	20.57%	56.78%	50.79%	0.29	0.14	
89	80,235	0.28%	52.24%	51.68%	78.97%	0.23	0.17	
90	80,391	0.48%	52.95%	66.22%	77.09%	0.48	0.22	
91	80,096	0.11%	20.98%	65.03%	45.19%	0.28	0.26	
92	79,305	-0.88%	57.26%	76.51%	77.83%	0.33	0.3	
93	79,432	-0.72%	29.74%	53.03%	64.21%	0.21	0.15	
94	79,429	-0.73%	21.02%	49.74%	52.27%	0.35	0.38	
95	79,367	-0.80%	54.52%	79.00%	75.68%	0.25	0.15	
MEAN		79,828	-0.23%	34.32%	59.40%	59.11%	0.35	0.22

NAACP DATA

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	80,689	0.85%	21.94%	65.37%	49.07%	0.5	0.5	
27	79,287	-0.90%	25.51%	63.58%	51.94%	0.36	0.29	
62	79,248	-0.95%	43.83%	59.94%	64.04%	0.31	0.21	
63	79,233	-0.97%	58.52%	68.27%	71.93%	0.41	0.2	
64	79,226	-0.98%	24.84%	63.79%	42.12%	0.42	0.15	
66	79,230	-0.97%	17.42%	63.34%	38.88%	0.48	0.29	
68	80,576	0.71%	16.91%	47.78%	49.69%	0.28	0.28	
69	79,224	-0.98%	50.37%	62.15%	82.14%	0.44	0.34	
70	79,557	-0.57%	46.49%	64.42%	71.37%	0.51	0.36	
71	79,237	-0.97%	49.95%	48.70%	80.79%	0.36	0.27	
72	79,546	-0.58%	16.53%	45.60%	52.39%	0.63	0.44	
73	79,758	-0.32%	7.63%	35.01%	37.14%	0.27	0.2	
74	80,604	0.74%	42.49%	54.55%	65.84%	0.23	0.22	
75	79,219	-0.99%	54.60%	61.08%	61.41%	0.43	0.2	
76	79,382	-0.78%	42.53%	68.51%	57.16%	0.38	0.5	
77	80,541	0.66%	47.51%	77.78%	69.18%	0.25	0.24	
78	80,023	0.02%	18.24%	67.47%	39.67%	0.57	0.49	
79	80,803	0.99%	32.52%	47.09%	61.32%	0.43	0.28	
80	80,762	0.94%	49.72%	63.81%	66.23%	0.37	0.28	
81	80,142	0.17%	14.35%	46.38%	38.30%	0.55	0.47	
83	79,213	-1.00%	16.23%	47.22%	47.45%	0.52	0.35	
84	80,100	0.11%	22.99%	60.38%	53.64%	0.4	0.23	
85	80,099	0.11%	29.40%	64.93%	60.99%	0.32	0.32	
89	80,808	1.00%	52.12%	50.03%	80.34%	0.52	0.39	
90	80,414	0.50%	45.97%	64.34%	70.11%	0.34	0.36	
91	79,574	-0.54%	22.42%	67.01%	46.07%	0.5	0.47	
92	79,344	-0.83%	57.60%	76.13%	78.58%	0.33	0.25	
93	79,211	-1.00%	22.58%	52.58%	58.10%	0.22	0.16	
94	79,738	-0.34%	29.34%	52.80%	56.52%	0.32	0.49	
95	79,762	-0.31%	50.67%	77.99%	74.37%	0.2	0.28	
MEAN		79,818	-0.24%	34.37%	59.60%	59.23%	0.40	0.32

PLAINTIFFS' A DATA

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31	
27	79,469	-0.68%	23.40%	64.54%	48.69%	0.48	0.29	
62	80,065	0.07%	27.72%	61.81%	50.65%	0.34	0.18	
63	79,436	-0.72%	55.79%	68.02%	67.56%	0.59	0.51	
64	79,452	-0.70%	29.70%	65.81%	44.22%	0.29	0.17	
66	79,330	-0.85%	16.65%	63.51%	37.64%	0.3	0.29	
68	79,218	-0.99%	12.52%	44.71%	48.30%	0.34	0.31	
69	79,489	-0.65%	50.79%	64.26%	80.96%	0.46	0.35	
70	79,412	-0.75%	58.47%	62.30%	81.27%	0.41	0.19	
71	79,515	-0.62%	50.89%	49.90%	83.82%	0.38	0.3	
72	80,432	0.53%	12.64%	42.67%	45.56%	0.29	0.2	
73	79,730	-0.35%	12.55%	37.78%	45.09%	0.39	0.24	
74	79,880	-0.16%	52.30%	56.14%	72.11%	0.26	0.22	
75	79,287	-0.90%	52.45%	58.23%	59.81%	0.41	0.32	
76	79,530	-0.60%	42.40%	68.63%	56.97%	0.45	0.47	
77	80,448	0.55%	46.99%	78.51%	68.15%	0.26	0.25	
78	80,037	0.03%	18.02%	65.24%	39.57%	0.44	0.32	
79	80,217	0.26%	31.37%	47.50%	61.56%	0.44	0.27	
80	79,924	-0.11%	51.92%	62.06%	68.90%	0.39	0.28	
81	80,691	0.85%	16.73%	57.21%	40.40%	0.37	0.28	
83	80,774	0.95%	22.24%	51.45%	51.32%	0.44	0.32	
84	79,655	-0.44%	21.57%	57.29%	50.70%	0.41	0.3	
85	80,754	0.93%	20.75%	59.49%	50.30%	0.39	0.27	
89	80,517	0.63%	51.71%	50.19%	79.31%	0.5	0.43	
90	79,228	-0.98%	45.30%	60.21%	72.38%	0.48	0.46	
91	79,503	-0.63%	25.11%	70.15%	48.56%	0.48	0.49	
92	79,959	-0.06%	58.15%	76.89%	78.84%	0.32	0.31	
93	79,232	-0.97%	19.92%	50.73%	54.85%	0.21	0.15	
94	79,268	-0.93%	30.04%	55.28%	57.85%	0.48	0.63	
95	79,667	-0.43%	49.29%	72.81%	73.33%	0.25	0.34	
MEAN		79,791	-0.27%	34.37%	59.60%	59.04%	0.39	0.32

PLAINTIFFS' B DATA

District	Population	Dev%	BVAP%	Fairfax '13	Obama '12	Reock	Polsby Popper	
21	79,608	-0.50%	23.86%	64.66%	52.43%	0.42	0.31	
27	79,675	-0.42%	23.01%	64.29%	48.86%	0.5	0.24	
62	79,916	-0.12%	28.88%	68.47%	54.12%	0.3	0.12	
63	79,436	-0.72%	55.79%	68.02%	67.56%	0.59	0.51	
64	79,452	-0.70%	29.70%	65.81%	44.22%	0.29	0.17	
66	79,397	-0.77%	16.06%	62.36%	37.27%	0.31	0.27	
68	79,334	-0.84%	10.39%	43.32%	45.86%	0.36	0.24	
69	80,340	0.41%	49.31%	61.26%	81.64%	0.46	0.37	
70	79,350	-0.82%	54.09%	61.48%	71.61%	0.3	0.2	
71	79,515	-0.62%	50.89%	49.90%	83.82%	0.38	0.29	
72	80,257	0.31%	13.65%	45.13%	46.59%	0.32	0.25	
73	79,730	-0.35%	12.55%	37.78%	45.09%	0.39	0.24	
74	79,242	-0.96%	58.98%	56.66%	77.79%	0.21	0.22	
75	79,287	-0.90%	52.45%	58.23%	59.81%	0.41	0.32	
76	79,530	-0.60%	42.40%	68.63%	56.97%	0.45	0.47	
77	80,448	0.55%	46.99%	78.51%	68.15%	0.26	0.25	
78	80,037	0.03%	18.02%	65.24%	39.57%	0.44	0.32	
79	80,217	0.26%	31.37%	47.50%	61.56%	0.44	0.27	
80	79,924	-0.11%	51.92%	62.06%	68.90%	0.39	0.28	
81	80,691	0.85%	16.73%	57.21%	40.40%	0.37	0.28	
83	80,774	0.95%	22.24%	51.45%	51.32%	0.44	0.32	
84	79,655	-0.44%	21.57%	57.29%	50.70%	0.41	0.3	
85	80,754	0.93%	20.75%	59.49%	50.30%	0.39	0.27	
89	80,517	0.63%	51.71%	50.19%	79.31%	0.5	0.43	
90	79,228	-0.98%	45.30%	60.21%	72.38%	0.48	0.46	
91	79,503	-0.63%	25.11%	70.15%	48.56%	0.48	0.49	
92	79,959	-0.06%	58.15%	76.89%	78.84%	0.32	0.31	
93	79,232	-0.97%	19.92%	50.73%	54.85%	0.21	0.15	
94	79,268	-0.93%	30.04%	55.28%	57.85%	0.48	0.63	
95	79,667	-0.43%	49.29%	72.81%	73.33%	0.25	0.34	
MEAN		79,798	-0.26%	34.37%	59.70%	58.99%	0.39	0.31

II. Identified flaws

While I cannot recommend the adoption of any of the plans in their present form, I have reviewed the features of each of these submitted proposed remedial maps with an eye toward the possibility of modifying elements of these submitted plans that were consistent with a narrowly tailored remedy in preparing the configurations of my own illustrative remedial maps. I discuss below, in more detail than in the body of the Report, the reasons why I cannot recommend to the Court any of the submitted remedial maps.

1. First, each of the five plans changes 30 or more districts. DI7002 changes 30; DI7003 changes 32; the NAACP changes 30; Plaintiffs' A changes 33 and Plaintiffs' B changes 32. My own examination of alternative mapping demonstrates that reconfiguration of more than 30 of the districts in the 2011 Enacted Plan was certainly not necessitated by the need to address the constitutional infirmities in the eleven districts found to be unconstitutional. Indeed, the illustrative remedial maps that can be constructed from the modules I have submitted to the Court would lead to a change in only from 21 to 26 districts.

Even were an excessive number of changed districts the only flaw, I cannot recommend a plan with this flaw, and so for this reason alone I cannot recommend DI7003, nor can I recommend either of Plaintiffs' plans. As noted in the Report,